To the Binder:

Substitute accompanying pages 57 and 58 for those in July impressions.

GEORGE FLOWERS STRADLING, PH.D.

This paper aims to give a statement of the properties claimed to belong to the N rays, the N_1 rays, the physiological rays and the heavy emission, with a history of the investigations and of the decline of belief in the existence of these rays.

In brief the N rays were believed to increase the brightness of an already luminous phosphorescent calcium sulphide screen on which they fell, while on the other hand the N_1 rays lessened its brightness. Barring certain differences of penetrating power, the physiological rays seemed about the same as the N rays. The heavy emission was held to consist of streams of matter ejected from objects, such as metals and liquids, and to be acted on by the attraction of the earth. It, too, made the phosphorescent screen brighten. Still another type of rays, the N_2 rays, has been discussed by a single writer, Breydel.[60]*

Blondlot discovered the N rays, the N_1 rays and the heavy emission; Charpentier discovered the physiological rays. All were first observed in Nancy. It is from the name of this university town that the letter N is taken as a designation.

In the account now to follow results will be quoted at the valuation of the investigators. No attempt will be made to avoid contradiction of properties claimed. Because of their similarity it will be impossible always to distinguish sharply between the N rays and the physiological rays.

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*Numerals above the line refer to the numbers of papers in the bibliography at the end of this article.

Prof. Lewis M. Haupt, in shment of a connected system of internal waterways along the Atlantic Coast, and moved that the Institute reaffirm its previous action in commending this important project. Carried.

Adjourned.

Wm. H. Wahl, *Secretary.*